

**IN THE CLAIMS:**

Claims 10, 11 and 13 were previously canceled. Claims 14-16 have been amended as set forth herein. All of the pending claims 1-9, 12 and 14-17 are presented below. Claims 1-9 and 12 were withdrawn. This listing of claims will replace all prior versions and listings of claims in the application. Please enter these claims as amended.

**Listing of Claims:**

1. (Withdrawn) Method for the detection and determination of GnRH receptors on tumor cells originating in brain and/or nervous system and/or the meninges and/or of Kaposi sarcoma comprising contacting said cells with a ligand for a GnRH receptor and determining if binding has occurred.

2. (Withdrawn) Method according to claim 1 characterized in that said ligand is an antibody.

3. (Withdrawn) Method according to claim 1 or 2 characterized in that said ligand is labeled.

4. (Withdrawn) Method according to claim 1 characterized in that the bound ligand is determined with labeled anti-ligand, preferably an antibody.

5. (Withdrawn) Method for the detection and determination of GnRH receptors on degenerate cells of a tumor originating in brain and/or nervous system and/or the meninges comprising:

- a) homogenizing peroperatively collected tumor tissue;
  - b) separating the membrane fraction;
  - c) determining the protein concentration in the membrane fraction of b); and
  - d) determining the concentration of GnRH receptors in the membrane fraction of b)
- to diagnose the above tumors.

6. (Withdrawn) Method according to claim 1 wherein the tissue is derived from a Glioblastoma multiforme, medulloblastoma, pinealoma, neuroblastoma, craniopharyngeoma, meningioma, chordoma, Ewing sarcoma, malignant melanoma, or Kaposi sarcoma.

7. (Withdrawn) Diagnostic kit for the practice of the method according to claims 1 to 6 comprising a ligand for a GnRH receptor.

8. (Withdrawn) (Previously presented) Diagnostic kit according to claim 7 for the detection of GnRH receptors for immunohistological diagnostics, for monitoring of the therapy, aftercare, early recognition of recidivation, and early recognition of tumors originating in brain and/or nervous system and/or the meninges comprising either a GnRH agonist or a monoclonal or polyclonal antibody against GnRH receptors, or one or more specific primer for GnRH receptors, e.g. for the amplification of GnRH receptor DNA in a reverse transcriptase polymerase chain reaction (RT-PCR).

9. (Withdrawn) Diagnostic kit according to claim 3 comprising the use of the method according to claims 7 or 8.

10. (Cancelled)

11. (Cancelled)

12. (Withdrawn) Conjugate of a GnRH agonist or GnRH antagonist to melatonin or to a melatonin analogue.

13. (Cancelled)

14. (Currently amended) A method for ~~treating~~ decreasing cellular replication of a tumor originating in one or more of the brain, nervous system or meninges of the brain comprising administering to a subject a therapeutically effective amount of one or more of a GnRH agonist or GnRH antagonist.

15. (Currently amended) A method for ~~treating~~ decreasing cellular replication of a Kaposi sarcoma comprising administering to a subject a therapeutically effective amount of one or more of a GnRH agonist or GnRH antagonist.

16. (Currently amended) A method for ~~treating~~ decreasing cellular replication of a Glioblastoma multiforme, medulloblastoma, pinealoma, neuroblastoma, craniopharyngeoma, meningioma, chordoma, Ewing sarcoma, malignant melanoma, or Kaposi sarcoma comprising administering to a subject a therapeutically effective amount of one or more of a GnRH agonist or GnRH antagonist.

17. (Previously presented) The method according to claim 14, wherein the GnRH agonists or GnRH antagonists are used in combination with a cytotoxic substance.